ORION TV-790

MODEL

SERVICE MANUAL

TO AUDIO SIGNAL

CNS5 To CN..

CNS9

CNS7

CNW1

CNW2

SC1

SC2

ICS2 TDA7266

ICS4 TDA7266

ICS5 TDA7053AT

CNS1

CNS2 To CN...

CNS4 REAR

CNS3 CENTRE

CNS6 LINE OUT

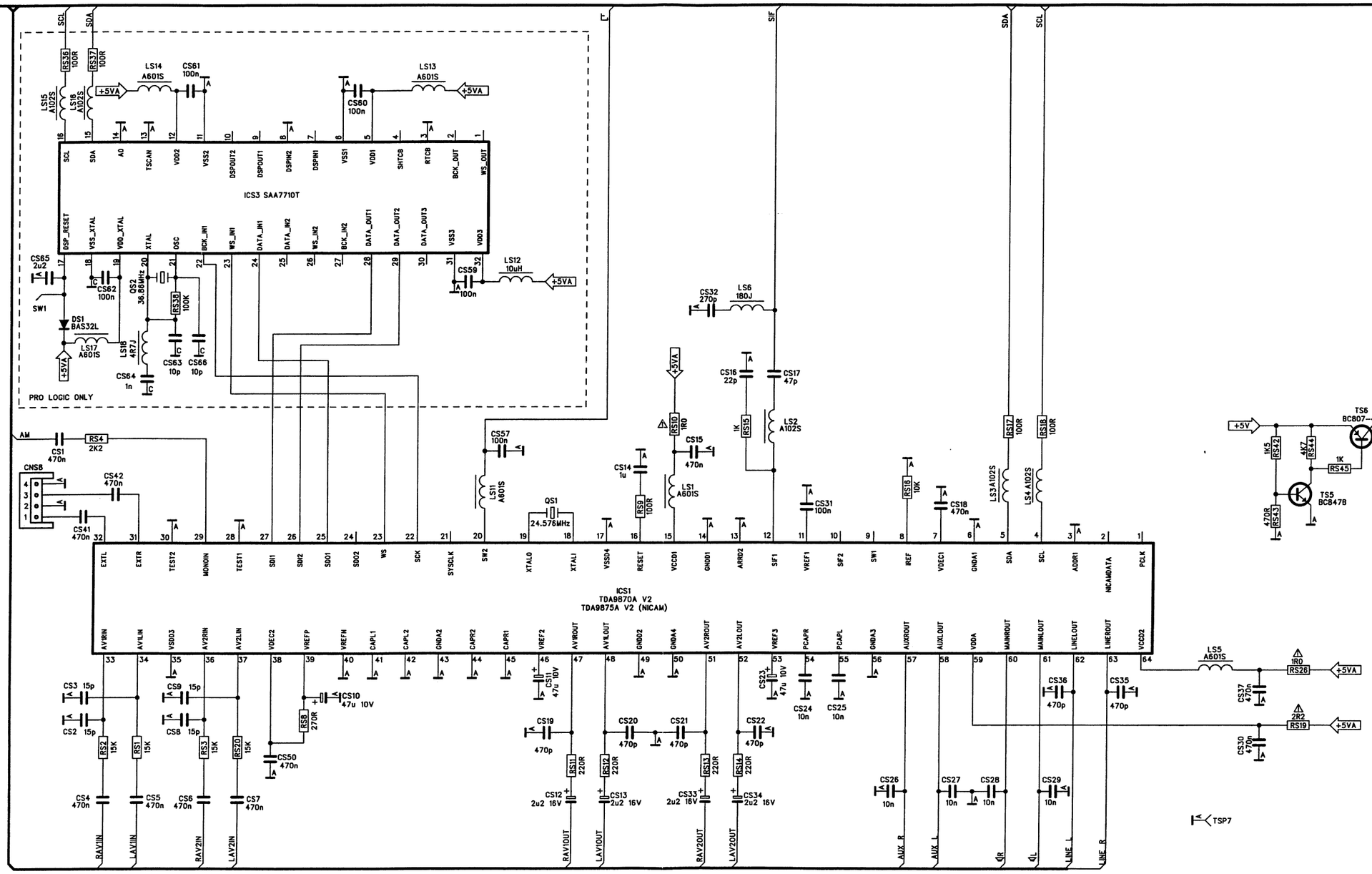
OPTIONAL

PRO LOGIC ONLY

	JS5	JS6	JS7	JS8
Pro Logic	–	–	X	X
No Pro Logic	X	X	–	–

Chassis Professional 2500
Audio Power Rev. 1.2
Connectors Pg. 1/6

S091020000



Chassis Professional 2500
Audio Signal Rev. 1.1
Pg.2/6

S091020000

TO AUDIO SIGNAL

TO DEFLECTIONS

FRANCE ONLY

ICC1 TDA9830

TUNC1 UV1316 UV1316AS (FRANCE)

ICC2 TDA9363

FCC1 L9453M

FCC2 –

FCC3 TPT02B

CNC1 FACTORY SERVICE

CNC11 TO CNV3 CRT PCB

OPTIONAL

IRH1 TSOP1836SS3V

DH1 KDE33BAS

JKH1

MENU

CNH4

DC1 BA792

DC2 BA792

DC3 1N4148

DC4 1N4148

DL5 1N4148

ZC1 BAS85

ZC2 BZV55C-33

ZC3 BZV55B-2V4

TC1 BC847B

TC2 BC847B

TC3 BC857B

TC4 BC847B

TC5 BC847B

TC6 BC857B

TC7 BC857B

TC8 BC857B

TC9 BC847B

TC10 BC847B

TC11 BC847B

TC12 BC847B

TC13 BC847B

TH1 BC847B

TH2 BC847B

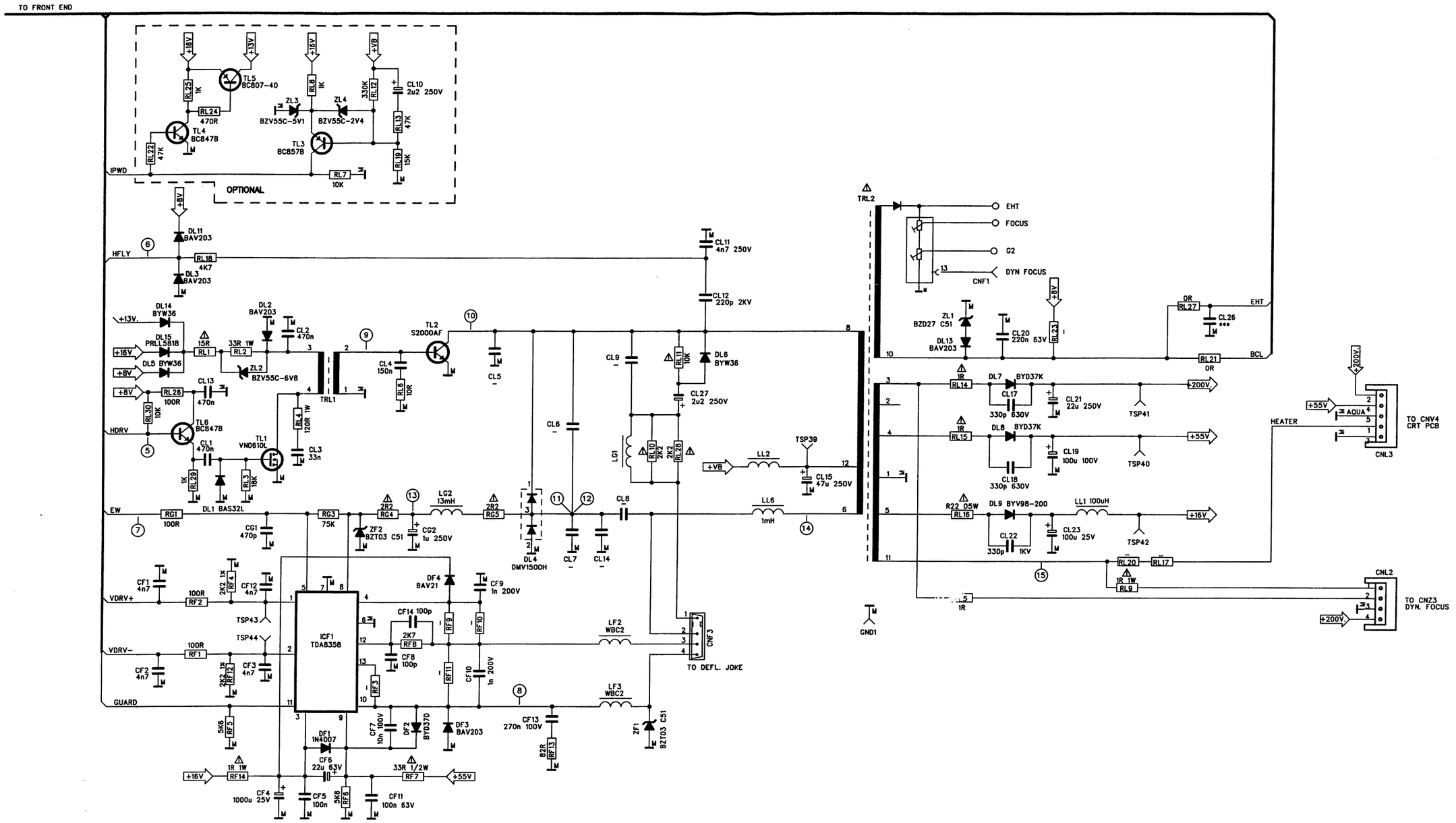
ICC3 M24C16-WBN6

QC1 12MHz

	FCC2	FCC3
BG	G1984M	TPT02B
I	J1980M	TPT04B
BG/DK	K2977M	TPT02B
BG/LL'	K2962M	TPT02B

Chassis Professional 2500
Front End **Rev. 1.2**
Pg. 3/6

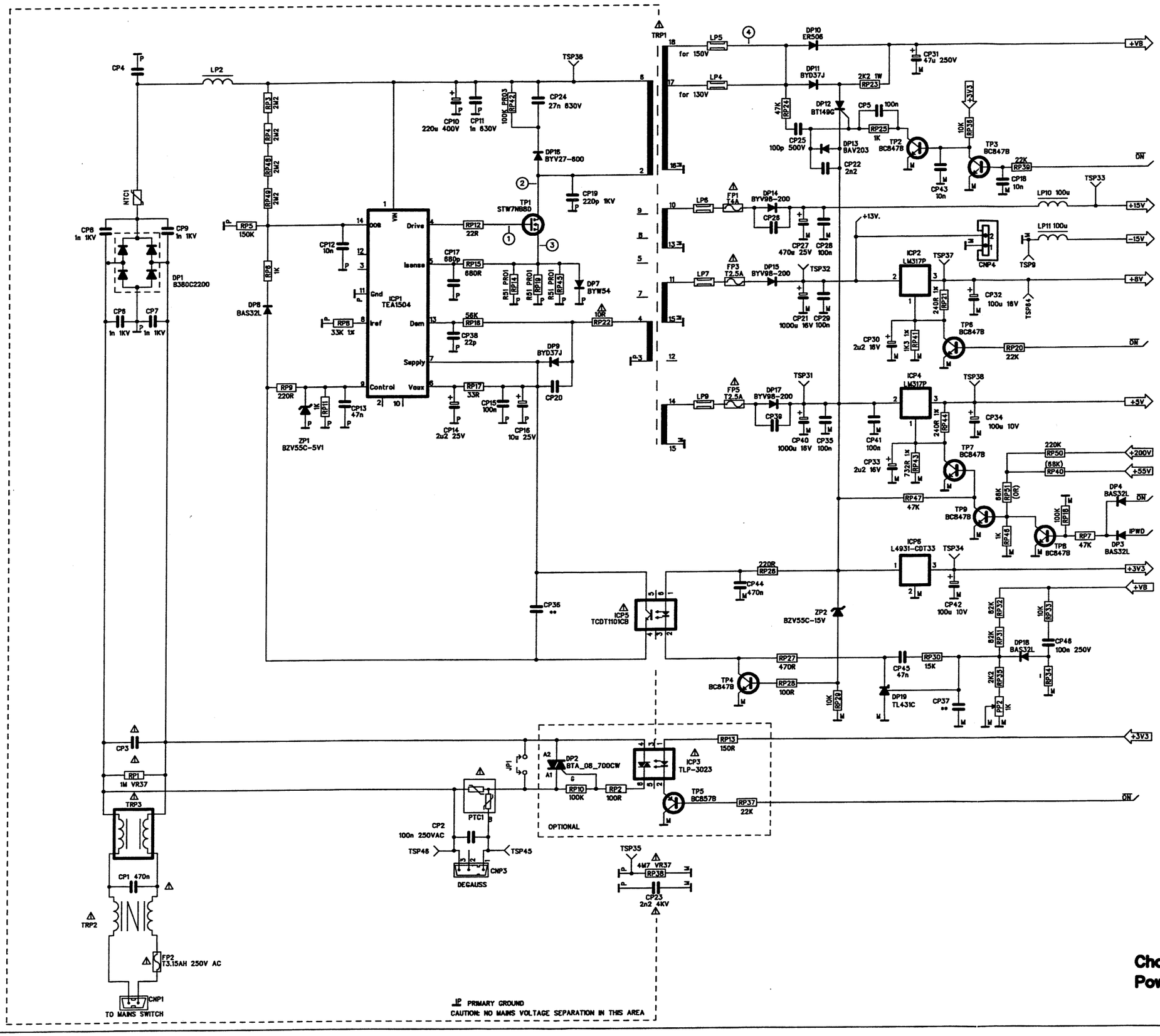
S091020000



	+VB	RC44	RF3	RF9	RF10	RF11	LG1	RG3	CL5	CL6	CL7	CL8	CL9	CL14	RL17	RL20	RL23	TRL2	LP4	LP5	RP32	RP32
A59EEQ15X97 (25" 4/3)	150V	680K	390K	3R3 1W	1R8 1W	330R 2W	TYPE A	75K	/	12nF 2000V 2,5%	33nF 630V	470nF 400V	560nF 250V	/	R51 2W	R51 2W	4K7	TYPE A	/	YES	82K	10K
A59EHJ13X38 (25" 4/3)	150V	680K	390K	3R3 1W	1R8 1W	330R 2W	TYPE A	75K	/	12nF 2000V 2,5%	33nF 630V	470nF 400V	680nF 250V	/	R39 2W	R39 2W	4K7	TYPE A	/	YES	82K	10K
A66EAK071X11 (28" 4/3)	150V	680K	390K	2R2 1W	1R8 1W	330R 2W	TYPE A	75K	/	12nF 2000V 2,5%	33nF 630V	470nF 400V	560nF 250V	/	1R2 2W	1R2 2W	4K7	TYPE A	/	YES	82K	10K
A66EHJ43X38 (28" 4/3)	150V	680K	390K	3R3 1W	1R8 1W	330R 2W	TYPE A	75K	/	12nF 2000V 2,5%	33nF 630V	470nF 400V	680nF 250V	/	R39 2W	R39 2W	4K7	TYPE A	/	YES	82K	10K
A68QCP893X230 (29" 4/3)	130V	820K	390K	3R3 1W	1R8 1W	180R 2W	TYPE B	75K	1nF 2000V	15nF 2000V 2,5%	22nF 630V	560nF 400V	680nF 250V	/	1R5 2W	1R5 2W	5K6	TYPE B	YES	/	56K	33K
W66EJU023X015 (28" 16/9)	130V	820K	390K	/	1R8 1W	330R 2W	TYPE B	68K	1nF 2000V	15nF 2000V 2,5%	22nF 630V	680nF 400V	820nF 250V	/	R62 2W	R62 2W	5K6	TYPE B	YES	/	56K	33K
W76EGV023X015 (32" 16/9)	130V	820K	390K	/	1R8 1W	330R 2W	TYPE B	68K	1nF 2000V	15nF 2000V 2,5%	22nF 630V	680nF 400V	820nF 250V	/	R62 2W	R62 2W	5K6	TYPE B	YES	/	56K	33K
W76EJY011X101 (32" 16/9)	130V	820K	390K	/	1R5 1W	330R 2W	TYPE B	68K	1n8 2000V	13nF 2000V 2,5%	22nF 630V	470nF 400V	1uF 250V	/	R62 2W	R62 2W	5K6	TYPE B	YES	/	56K	33K
W66ERF041X013 (28" 16/9)	130V	820K	390K	3R3 1W	1R8 1W	330R 2W	TYPE C	68K	1n 2000V	13nF 2000V 2,5%	22nF 630V	470nF 400V	680nF 250V	/	1R5 2W	1R5 2W	5K6	TYPE B	YES	/	56K	33K
W66ECK001X13 (28"16/9)	130V	820K	390K	10R 1W	1R8 1W	330R 2W	TYPE B	68K	2n2 2000V	12nF 2000V 2,5%	22nF 630V	560nF 400V	680nF 250V	/	1R5 2W	1R5 2W	5K6	TYPE B	YES	/	56K	33K
W66EJY011X101 (28"16/9)	130V	820K	390K	/	1R5 1W	220R 2W	TYPE B	68K	1n8 2000V	13nF 2000V 2,5%	22nF 630V	470nF 400V	1uF 250V	/	R62 2W	R62 2W	5K6	TYPE B	YES	/	56K	33K

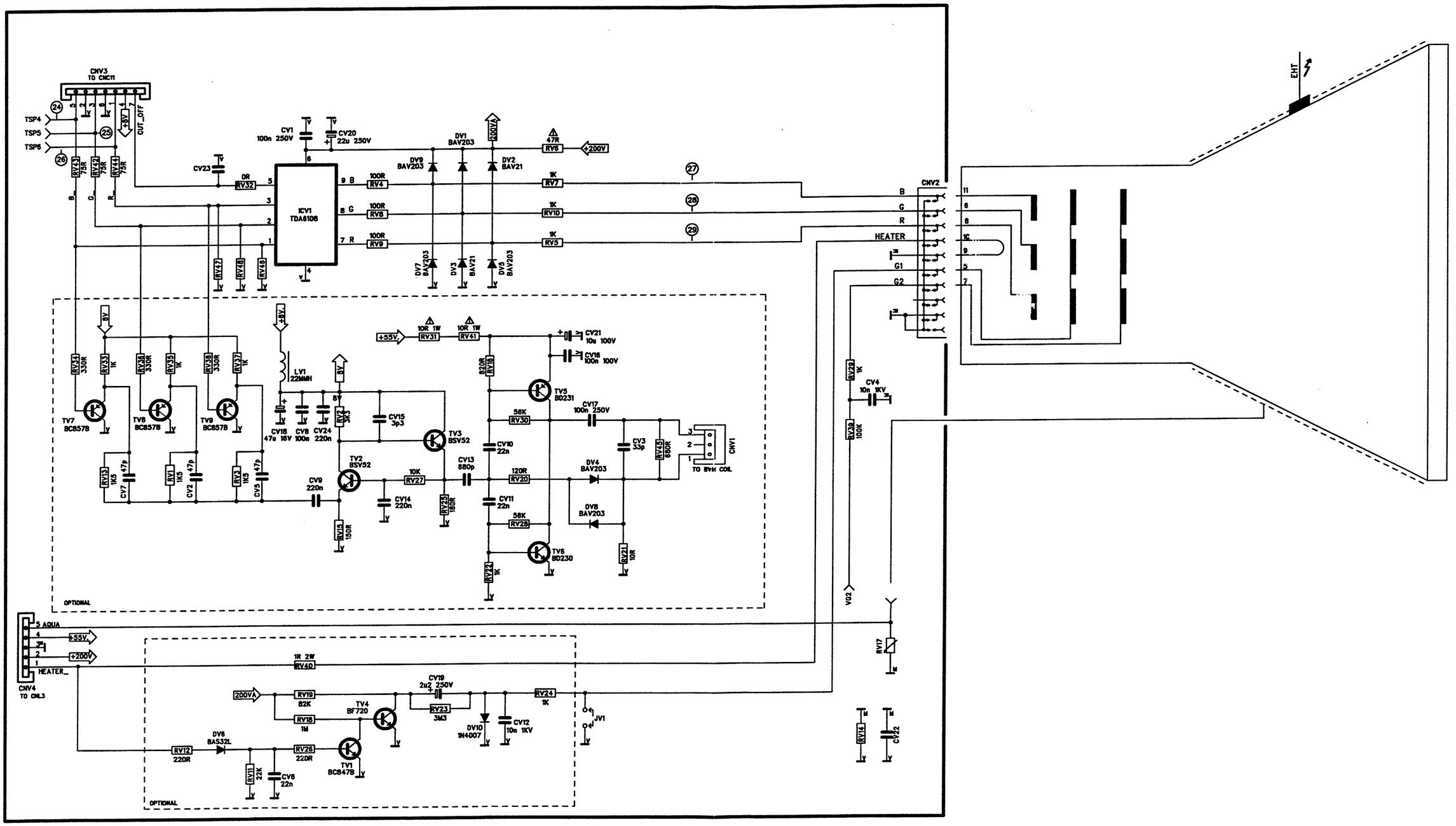
S091020000

Chassis Professional 2500
Deflections **Rev. 1.2**
Pg. 4/6



Chassis Professional 2500
Power Supply Rev. 1.1
Pg. 5/6

S091020000



Chassis Professional 2500
RGB **Rev. 1.1**
Pg. 6/6

S091020000

Service notes

After a repair the cables must be laid out as originally fitted to save compliance with original approval and to avoid failures or disturbances.
The mains cable prevents interference from the mains supply and is part of the product approval. For replacement the original spare part only must be used.

Note di servizio

Dopo una riparazione i cavi devono essere disposti come posizionati all'origine per mantenere la corrispondenza con le approvazioni originali ed evitare guasti o disturbi.
Il cavo di alimentazione previene interferenze provenienti dalla rete elettrica ed è parte delle approvazioni del prodotto. Per la sostituzione deve essere utilizzato esclusivamente il ricambio originale.

Modifications reserved - Con riserva di modifiche

Spare parts list
Lista parti di ricambio

Chassis Professional 2500

Rev.1.0

Ref./Pos.	Part.No. Codice	Description	Descrizione	Note
CP10	S010010130	Condensator 220 µF 400V	Condensatore 220 PF 400V	
CP31/CL15	S040600500	Condensator 47 µF 250V	Condensatore 470 µF 250V	
CV20/CL21	S040600220	Condensator 22 µF 250V	Condensatore 22 µF 250V	
CG2	S040590100	Condensator 1 µF 250V	Condensatore 1 µF 250V	
CL27/CV19	S040590220	Condensator 2,2 µF 250V	Condensatore 2,2 µF 250V	
CP1	S030244700	Condensator 470 nF 275 VAC	Condensatore 470 nF 275 VAC	
CL6	S010030180	Condensator 12 nF 2000V 2,5%	Condensatore 12 nF 2000V 2,5%	
CL6	S036231300	Condensator 13 nF 2000V 2,5%	Condensatore 13 nF 2000V 2,5%	
CL6	S010030230	Condensator 15 nF 2000V 2,5%	Condensatore 15 nF 2000V 2,5%	
	S011010120	Fusible resistor 47 Ohm	Resistenza sicurezza 47 Ohm	
	S044010100	Fusible resistor 1 Ohm	Resistenza sicurezza 1 Ohm	
	S044011500	Fusible resistor 15 Ohm	Resistenza sicurezza 15 Ohm	
	S047501000	Fusible resistor 1 Ohm SMD	Resistenza sicurezza 1 Ohm SMD	
	S047502200	Fusible resistor 2,2 Ohm SMD	Resistenza sicurezza 2,2 Ohm SMD	
	S047504700	Fusible resistor 4,7 Ohm	Resistenza sicurezza 4,7 Ohm	
	S047510000	Fusible resistor 10 Ohm	Resistenza sicurezza 10 Ohm	
	S048002200	Fusible resistor 2,2 Ohm	Resistenza sicurezza 2,2 Ohm	
	S048033000	Fusible resistor 33 Ohm	Resistenza sicurezza 33 Ohm	
RL10/RL28	S048222000	Fusible resistor 2,2 KOhm	Resistenza sicurezza 2,2 KOhm	
RP42	S011030020	Resistor 100 KOhm 3W	Resistenza 100 KOhm 3W	
RP41	S011010150	Resistor 1,3 KOhm 1%	Resistenza 1,3 KOhm 1%	
RP43	S011010160	Resistor 732 Ohm 1%	Resistenza 732 Ohm 1%	
RP21/RP44	S011010180	Resistor 240 Ohm 1%	Resistenza 240 Ohm 1%	
RP8	S011010200	Resistor 33 KOhm 1%	Resistenza 33 KOhm 1%	
RF4/RF12	S011010240	Resistor 2,2 Kohm 1%	Resistenza 2,2 Kohm 1%	
RP14/RP19 RP45	S011010250	Resistor R51 Ohm 1W	Resistenza R51 Ohm 1W	
RP1	S053051000	Resistor 1 MOhm VR37	Resistenza 1 MOhm VR37	
RP38	S053054700	Resistor 4,7 MOhm VR37	Resistenza 4,7 MOhm VR37	
NTC1	S056590200	NTC resistor 4,7 Ohm	Resistenza NTC 4,7 Ohm	
PTC1	S056591900	PTC resistor 20 A	Resistenza PTC 20 A	
FP2	S070506500	Fusible 3,15A H	Fusibile 3,15A H	

FP3/FP5	S070503900	Mini fuse 2,5A	Mini fuse 2,5A	
FP1	S070503940	Mini fuse 4A	Mini fuse 4A	
DL4	S021020150	Diode DMV1500H	Diodo DMV1500H	
DP10	S021020160	Diode ER 506	Diodo ER 506	
DP14/DP15 DP17/DL9	S061303800	Diode BYV 98/200	Diodo BYV 98/200	
DP16	S021020060	Diode BYV 27/600	Diodo BYV 27/600	
DP7	S021020100	Diode BYW 54	Diodo BYW 54	
DL14	S061301360	Diode BYW 36	Diodo BYW 36	
	S021020170	Diode BYD 37D	Diodo BYD 37D	
	S061401370	Diode BYD 37K	Diodo BYD 37K	
	S061503750	Diode BYD 37J	Diodo BYD 37J	
DC1/DC2	S061517920	Diode BA792	Diodo BA792	
	S061112050	Diode BAS 32 L	Diodo BAS 32 L	
	S061002100	Diode BAV 21	Diodo BAV 21	
	S061281050	Diode BAV 203	Diodo BAV 203	
ZL1	S021020120	Diode BZD27/C51	Diodo BZD27/C51	
DL15	S021020130	Diode PRLL5818	Diodo PRLL5818	
	S061014140	Diode 1N 4148	Diodo 1N 4148	
DF1	S061111320	Diode 1N 4007	Diodo 1N 4007	
	S021020000	Diode BAS85	Diodo BAS85	
DP19	S021020090	Diode TL431CZT	Diode TL431CZT	
DP1	S061270000	Bridge rectifiers	Ponte a diodi	
DH1	S062000400	Led diode red/green	Diodo led rosso/verde	
DP12	S021020080	Tyristor BT149G	Tyristor BT149G	
	S061515500	Zener diode 3V6	Diodo zener 3V6	
	S061705100	Zener diode 5V1	Diodo zener 5V1	
	S061706800	Zener diode 6V8	Diodo zener 6V8	
	S061713300	Zener diode 33V	Diodo zener 33V	
ZF1/ZF2	S061909350	Zener diode BZT03-C51	Diodo zener BZT03-C51	
ZC3	S021020070	Zener diode 2V4	Diodo Zener 2V4	
ZP2	S021020140	Zener diode 15V	Diodo zener 15V	
TP1	S021010030	Transistor STW7NA80	Transistor STW7NA80	
TL2	S062756100	Transistor S 2000AF	Transistor S 2000AF	
TL5	S021010060	Transistor BC807-40	Transistor BC807-40	
TL1	S021010070	Transistor VN0610L	Transistor VN0610L	
TV4	S062607200	Transistor BF 720	Transistor BF 720	
ICS2/ICS4	S020030030	I.C. TDA7266	I.C.TDA7266	
ICF1	S020030040	I.C. TDA8358J	I.C. TDA8358J	
ICP1	S020030050	I.C. TEA1504	I.C. TEA1504	

ICC2	S020030080	I.C. TDA9363 (SEI 2500 1.0)	I.C. TDA9363 (SEI 2500 1.0)	
ICP2/ICP4	S020030130	I.C. LM317P	I.C. LM317P	
ICP5	S020030150	I.C. TCD T1102G	I.C. TCD T1102G	
ICV1	S063161080	I.C. TDA 6108JF	I.C. TDA 6108JF	
ICC1	S063198300	I.C. TDA 9830	I.C. TDA 9830	
ICS1	S063198700	I.C. TDA9870A	I.C. TDA9870A	
ICS1	S063198750	I.C. TDA 9875A	I.C. TDA 9875A	
ICP6	S063549310	I.C. L4931-CDT33	I.C. L4931-CDT33	
ICS5	S063570530	I.C. TDA 7053AT	I.C. TDA 7053AT	
ICC3	S020020010	I.C. M24C16-WBN6	I.C. M24C16-WBN6	
IC7	S030010010	Choke 8,2 µH SMD	Choke 8,2 µH SMD	
FCC1	S067324000	Saw filter L9453M	Filtro SAW L9453M	
FCC2	S067316000	Saw filter G1984M	Filtro SAW G1984M	
FCC2	S033010000	Saw filter J1980M	Filtro SAW J1980M	
FCC2	S033010010	Saw filter K2977M	Filtro SAW K2977M	
FCC2	S033010020	Saw filter K2962M	Filtro SAW K2962M	
TRP3	S030040080	Mains filter	Filtro rete	
TRP1	S032020000	SMPS transformer	Trasformatore alimentazione	
TRL1	S066544000	Line drive transformer	Trasformatore pilota di riga	
TRL2	S031010000	Flayback transformer (Type A)	Trasformatore EAT (Type A)	
TRL2	S031010030	Flayback transformer (Type B)	Trasformatore EAT (Type B)	
QC1	S034010020	Quarz 12MHz	Quarzo 12MHz	
QS1	S066902450	Quarz 24,576MHz	Quarzo 24,576MHz	
LL6	S030040100	Bridge coil	Bobina ponte	
LG2	S067071000	Choke coil 13,5 mH	Bobina choke 13.5 mH	
LP2	S030040110	PFC coil	PFC coil	
	S040010010	Tuner	Tuner	
	S036020010	Switch push	Switch push	
	S071015300	Earphone jack	Presa cuffia	
IRH1	S020030100	IR receiver TSOP1836SS3V	Ricevitore IR TSOP1836SS3V	
	S036020020	Mains switch	Interruttore di rete	

Spare parts list
Lista parti di ricambio

28EDA TV 790 A

Chassis Professional 2500

Ref./pos	Part.No. Codice	Description	Descrizione	
	S000532080	**Main PCB 2500 4:3 cpl.**	**Chassis 2500 4:3 cpl.**	
	S000800500	**Manuals controls PCB cpl.**	**Comando locale cpl.**	
	S062000400	LED diode red/green	Diodo LED rossso/verde	
	S036020020	Mains switch	Interruttore rete	
	S068056300	Pusch EKPT 1105 S	Pusch EKPT 1105 S	
	S020030100	IR receiver TSOP1836SS3VBS12	Ricevitore IR TSOP1836SS3VBS12	
	S071015300	Earphone jack	Presa cuffia	
	S083307100	Mains switch button	Tasto interruttore rete	
	S092503600	Mains cable	Cavo rete	
	S070140100	Manuals control holder	Supporto comandi manuali	
	S000848010	Door	Sportello comandi	
	S082811460	Door holder	Cerniera sportello	
	S082900000	Door push-push block	Fermo push-push	
	S078657100	Cabinet front	Mobile parte frontale	
	S070050180	Holder chassis	Supporto telaio	
	S080157000	Back cover	Schienale	
	S070050220	Rear pannel	Sfondo	
	S080010190	CRT 28" A66EAK075X11	Cinescopio 28" A66EAK075X11	
	S067202110	Degauss coil	Bobina smagnetizzazione	
	S040030040	Remote control	Telecomando	
	S037010020	Speaker 8 Ohm	Altoparlante 8 Ohm	
	S081058200	Gift box	Scatola imballaggio	
	S090010110	Polibag top	Polistirolo superiore	
	S081256000	Polibag bottom	Polistirolo inferiore	

Spare parts list
Lista parti di ricambio

28EDC TV 794 A

Chassis Professional 2500

Ref./pos	Part.No. Codice	Description	Descrizione	
	S000532050	**Main PCB 2500 4:3 cpl.**	**Chassis 2500 4:3 cpl.**	
	S000800500	**Manuals controls PCB cpl.**	**Comando locale cpl.**	
	S062000400	LED diode red/green	Diodo LED rosso/verde	
	S036020020	Mains switch	Interruttore rete	
	S068056300	Pusch EKPT 1105 S	Pusch EKPT 1105 S	
	S020030100	IR receiver TSOP1836SS3VBS12	Ricevitore IR TSOP1836SS3VBS12	
	S071015300	Earphone jack	Presa cuffia	
	S083307100	Mains switch button	Tasto interruttore rete	
	S092503600	Mains cable	Cavo rete	
	S070140100	Manuals control holder	Supporto comandi manuali	
	S000848010	Door	Sportello comandi	
	S082811460	Door holder	Cerniera sportello	
	S082900000	Door push-push block	Fermo push-push	
	S070110710	Cabinet front	Mobile parte frontale	
	S070140100	Holder chassis	Supporto telaio	
	S070030030	Back cover	Schienale	
	S070050220	Rear pannel	Sfondo	
	S080010100	CRT 28" A66EHJ43X38	Cinescopio 28" A66EHJ43X38	
	S067202110	Degauss coil	Bobina smagnetizzazione	
	S040030040	Remote control	Telecomando	
	S037010020	Speaker 8 Ohm	Altoparlante 8 Ohm	
	S081058200	Gift box	Scatola imballaggio	
	S090010110	Polibag top	Polistirolo superiore	
	S081256000	Polibag bottom	Polistirolo inferiore	

Spare parts list
Lista parti di ricambio

28EDE TV 796SI

Chassis Professional 2500

Ref./pos	Part.No. Codice	Description	Descrizione	
	S000532000	**Main PCB 2500 4:3 cpl.**	**Chassis 2500 4:3 cpl.**	
	S070050030	Push buttons	Tasti push	
	S070050170	Mains switch button	Tasto interruttore rete	
	S070050020	Optical guide	Guida ottica	
	S092503600	Mains cable	Cavo rete	
	S070110280	Cabinet front	Mobile parte frontale	
	S070050180	Holder chassis	Supporto telaio	
	S070030030	Back cover	Schienale	
	S070050220	Rear pannel	Sfondo	
	S080010100	CRT 28" A66EHJ43X38	Cinescopio 28" A66EHJ43X38	
	S067202110	Degauss coil	Bobina smagnetizzazione	
	S040030040	Remote control	Telecomando	
	S037010020	Speaker 8 Ohm	Altoparlante 8 Ohm	
	S081058200	Gift box	Scatola imballaggio	
	S090010110	Polibag top	Polistirolo superiore	
	S081256000	Polibag bottom	Polistirolo inferiore	

Spare parts list
Lista parti di ricambio

28EPC 375/012

Chassis Professional 2500

Ref./pos	Part.No. Codice	Description	Descrizione	
	S000532000	**Main PCB 2500 4:3 cpl.**	**Chassis 2500 4:3 cpl.**	
	S070050030	Push buttons	Tasti push	
	S070050170	Mains switch button	Tasto interruttore rete	
	S070050020	Optical guide	Guida ottica	
	S092503600	Mains cable	Cavo rete	
	S070110280	Cabinet front	Mobile parte frontale	
	S070050180	Holder chassis	Supporto telaio	
	S070030030	Back cover	Schienale	
	S070050220	Rear pannel	Sfondo	
	S080010100	CRT 28" A66EHJ43X38	Cinescopio 28" A66EHJ43X38	
	S067202110	Degauss coil	Bobina smagnetizzazione	
	S040030040	Remote control	Telecomando	
	S037010020	Speaker 8 Ohm	Altoparlante 8 Ohm	
	S090020260	Gift box	Scatola imballaggio	
	S090010110	Polibag top	Polistirolo superiore	
	S081256000	Polibag bottom	Polistirolo inferiore	

Spare parts list
Lista parti di ricambio

28XPA 772/739A

Chassis Professional 2500

Ref./pos	Part.No. Codice	Description	Descrizione	
	S000532100	**Main PCB 2500 16:9 cpl.**	**Chassis 2500 16:9 cpl.**	
	S000800500	**Manuals controls PCB cpl.**	**Comando locale cpl.**	
	S062000400	LED diode red/green	Diodo LED rosso/verde	
	S036020020	Mains switch	Interruttore rete	
	S068056300	Pusch EKPT 1105 S	Pusch EKPT 1105 S	
	S020030100	IR receiver TSOP1836SS3VBS12	Ricevitore IR TSOP1836SS3VBS12	
	S071015300	Earphone jack	Presa cuffia	
	S083307100	Mains switch button	Tasto interruttore rete	
	S092503600	Mains cable	Cavo rete	
	S070140100	Manuals control holder	Supporto comandi manuali	
	S000848010	Door	Sportello comandi	
	S082811460	Door holder	Cerniera sportello	
	S082900000	Door push-push block	Fermo push-push	
	S070110730	Cabinet front	Mobile parte frontale	
	S070050180	Holder chassis	Supporto telaio	
	S070030040	Back cover	Schienale	
	S070050220	Rear pannel	Sfondo	
	S080010000	CRT 28" W66EJU023X015	Cinescopio 28" W66EJU023X015	
	S067203410	Degauss coil	Bobina smagnetizzazione	
	S040030040	Remote control	Telecomando	
	S073174000	Speaker 8 Ohm	Altoparlante 8 Ohm	
	S090020270	Gift box	Scatola imballaggio	
	S081247020	Polibag top	Polistirolo superiore	
	S081247000	Polibag bottom	Polistirolo inferiore	

Spare parts list
Lista parti di ricambio

28XPB 765/293A

Chassis Professional 2500

Ref./pos	Part.No. Codice	Description	Descrizione	
	S000532100	**Main PCB 2500 16:9 cpl.**	**Chassis 2500 16:9 cpl.**	
	S000800500	**Manuals controls PCB cpl.**	**Comando locale cpl.**	
	S062000400	LED diode red/green	Diodo LED rosso/verde	
	S036020020	Mains switch	Interruttore rete	
	S068056300	Pusch EKPT 1105 S	Pusch EKPT 1105 S	
	S020030100	IR receiver TSOP1836SS3VBS12	Ricevitore IR TSOP1836SS3VBS12	
	S071015300	Earphone jack	Presa cuffia	
	S083307100	Mains switch button	Tasto interruttore rete	
	S092503600	Mains cable	Cavo rete	
	S070140100	Manuals control holder	Supporto comandi manuali	
	S000848010	Door	Sportello comandi	
	S082811460	Door holder	Cerniera sportello	
	S082900000	Door push-push block	Fermo push-push	
	S078649100	Cabinet front	Mobile parte frontale	
	S070050180	Holder chassis	Supporto telaio	
	S080149000	Back cover	Schienale	
	S070050220	Rear pannel	Sfondo	
	S080010000	CRT 28" W66EJU023X015	Cinescopio 28" W66EJU023X015	
	S067203410	Degauss coil	Bobina smagnetizzazione	
	S040030040	Remote control	Telecomando	
	S073174000	Speaker 8 Ohm	Altoparlante 8 Ohm	
	S090020270	Gift box	Scatola imballaggio	
	S081247020	Polibag top	Polistirolo superiore	
	S081247000	Polibag bottom	Polistirolo inferiore	

Chassis Professional 2500 service procedure

Power supply

Using PP2, set the value of +VB at the terminals of CP31 (the values for different types of CRT are indicated in the table on the circuit diagram).

Activation of service mode

1. Power up the appliance by pressing the on-off switch simultaneously pressing and holding the MENU button of the cabinet controls until the green Led lights up.

2. Release the MENU button at the cabinet and press the stand-by button on the remote control; the appliance will default to programme 1, or to position AV1 if pin 8 of the SCART 1 socket is connect to a +12 V supply.
Important: make certain that the test signal needed for adjustment purposes is available either on programme 1 or on the SCART 1 input, as any further selection of sources is not possible when in service mode.

3. The functions accessible in service mode are listed below; they are selected with the P+ and P– buttons of the remote control then adjusted with the Volume ± buttons.
It is advisable to note down the initial value of each parameter before making any adjustment, so that it can be restored easily if necessary.

In the event of the NVM memories being replaced, it will be necessary to carry out all of the envisaged service mode adjustments, as the replacement memory is supplied NOT pre-programmed and a new initialization is therefore indispensable.
WARNING. If a new NVM is installed, service mode will not allow the various parameters to be accessed until the initialization procedure has been completed.
WARNING. Tuning is not possible before initialization.

Option byte (Op)

The correct value for the individual appliance is indicated on the label affixed to the rear of the cabinet alongside the words Option byte.

Initialization (INIT)

The initialization procedure, which also indicates the PP software version, is activated by pressing the Volume + button and must be run every time the NVM or the PP is replaced. Remember that this operation erases all memorized data .

Screen grid voltage (Vg2 align)

Having selected the function, press the Volume + button; a luminous horizontal line will appear in the middle of the screen. Set potentiometer G2 of the EHT transformer so that the line is just visible (in a dimly lit room). Now press the Volume – button and wait a few seconds for service mode to be restored.

AGC tuner (AG)

Applying a signal of 1mV to the aerial input on a UHF channel, adjust so as to give 4 V_{DC} at pin 1 of the tuner.

OSD horizontal position (Hor-pos)

Adjust the position of the On Screen Display as desired.

Use of UHF band only (UHF only)

Select UHF only (on) to speed up the channels auto search in areas where there are no VHF transmitters (e.g. United Kingdom).

Automatic tuning (Stepdelays / Stepsizes)

In the event that difficulty is experienced with the automatic tuning procedure when searching for critical channels, adjust to reduce the scan speed (Stepdelay) and the size of the step (Stepsizes). Normal values are 0 (zero).

Black lev el (BLE)

This varies the intensity of black in the picture. Adoption of the fixed value 136 is recommended.

White adjustment (WB/WG/WR)

Using a B&W bar signal, adjust to obtain a grey image.

Horizontal geometry (HSH/EW/PW/CPU/CPL/TC/HPA/HBO)

The single parameters are as follows:

HBO	Horizontal bow
HPA	Horizontal parallelogram
TC	Trapeze correction
CPL	Corner parabola low
CPU	Corner parabola up
PW	Parabola correction
EW	Horizontal Amplitude
HSH	Horizontal Shift

Vertical geometry (VS/VA/VSH/SC)

The vertical geometry is adjusted starting from the VS function (Vertical Slope), making the adjustment so that the middle horizontal line of the test signal is exactly at the meeting of the picture and the black bottom margin, and must not be altered again thereafter (when settings are significantly out of adjustment, the caption VS may not appear because the bottom part of the picture is missing).

The single parameters are as follows:

VA	Vertical amplitude
VSH	Vertical shift
VS	Vertical slope
SC	Vertical S-correction (linearity)

Deactiv ating service mode

Once all the necessary adjustments have been made, press the TV button on the remote control. This will have the effect of storing all the functions with the new settings and returning the appliance to normal operation.